

AHS ■ MULTIFLEX

Roller brake testers for passenger cars and transporters

HIGH TECH PRODUCTS
MADE IN GERMANY



Scales also available in kgf



NEW! AHS Softstarter –
energy saving and protection
of brake tester and vehicle!

All AHS testers
can be upgraded to a complete
test lane!



AHS ■ PRÜFTECHNIK

www.ahs-prueftechnik.de info@ahs-prueftechnik.de



Indicator light for high brake force difference (standard for all types)



Optional: Pneumatic lifting bar for easy drive-out or drive-over

EASY

MULTIFLEX 06 EASY



The powerful and future-proofed MULTIFLEX 06 EASY meets the challenge to fulfill today's and future demands. It is the perfect brake tester for the service-oriented workshop. The standard equipment is practice-oriented and is characterized by high functionality. The fully automated testing procedure guarantees a cost-saving, fast and precise diagnosis.

LED indicator lights with very long lifetime

Visual steering via traffic light system

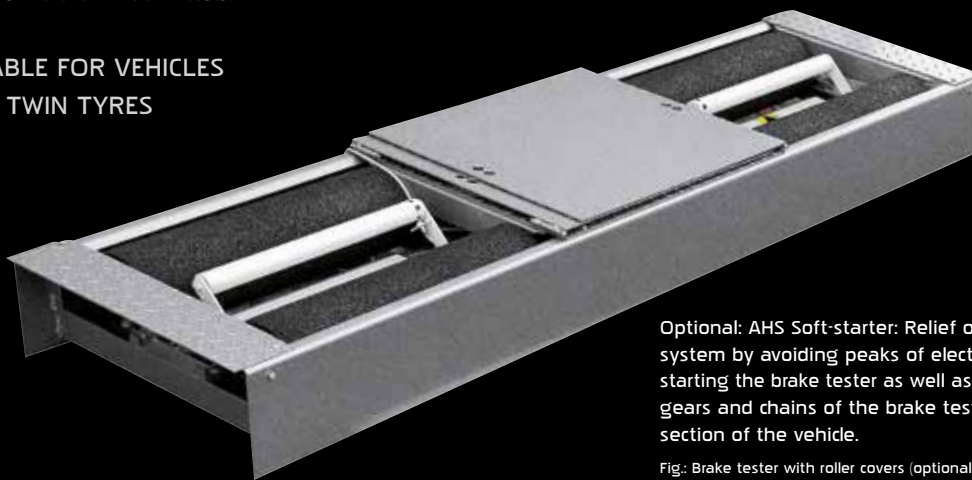
Furthermore, the customer can design the brake tester to meet his special needs by adding manifold accessories. The optional displays for side slip, weight and pedal force can show all safety-related results precisely and clearly arranged.

Automatic calculation of brake efficiency when equipped with weighbridge

Optional: Multifunction display for weighbridge, pedal force meter and side slip tester

The AHS MULTIFLEX 06 EASY is perfect for all workshops that repair and maintain passenger cars and transporters, also in order to prepare them for annual inspection. The MULTIFLEX 06 EASY can be equipped with many accessories either from the beginning or later on in order to guarantee an optimal customer-oriented solution. It can also be upgraded to a complete test lane with brake tester, suspension tester, side slip tester and PC equipment at any time. Nevertheless, even with standard equipment, the 06 EASY comes with practice-oriented functions without additional costs.

SUITABLE FOR VEHICLES WITH TWIN TYRES



Optional: AHS Soft-starter: Relief of power supply system by avoiding peaks of electric tension when starting the brake tester as well as relief of bearings, gears and chains of the brake tester and the drive section of the vehicle.

Fig.: Brake tester with roller covers (optional)

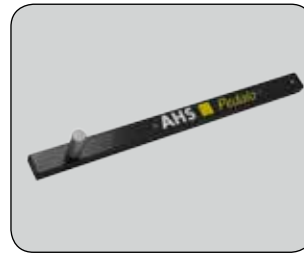
Robust frame construction, special versions for existing pits

Long-living fully plastic-corundum coated or steel rollers for extreme usage

Powerful motors – 2 x 2.5, 4.6 or 5.5 kW depending on model

Big testing width, depending on model from 2300 up to 2660 mm

Digital displays for suspension tester



PKM 2012 – the innovative pedal force meter

EASY

MULTILINE 05
MULTIFLEX 05

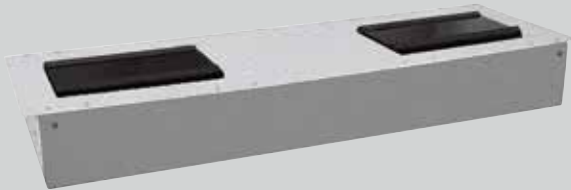
The AHS MULTILINE 05 is the first step to a competitive and customer-oriented test lane. The digital displays for suspension and side slip testing are prepared. This makes it easier to decide for an upgrade – now or later. Not to forget: The AHS SUSPENSION TESTER can be actively used for sales promotion! Damaged shock absorbers can be detected fast and precise, the road safety can be highly increased!

The AHS MULTIFLEX 05 – reduced to the essentials – provides all measurement results and information at one glance (see fig. right side).



FAST.
EFFECTIVE.
EFFICIENT.

The AHS SUSPENSION TESTER is based on the resonance principle (BOGE) and guarantees precise and reliable measurement results.



SUSPENSION TESTER 1500: Testing load up to 1500 kgs
SUSPENSION TESTER 2000: Testing load up to 2000 kgs
Optional: Frequency controlled noise search

PC INTERFACE (standard) for the professional vehicle diagnostics with testing software PICARO III



OPTIONS E. G.:

	Multiflex 05 Multiline 05	06 and 04/08	06/12
Thermostat-controlled cabinet heating	✓	✓	✓
PC desk with monitor holder and mouse plate	✓	✓	✓
Workshop righteous PC cabinet with vision panel	✓	✓	✓
Software package PICARO III for Windows	✓	✓	✓
Side slip tester AT1002	only Multiline	✓	✓
FSuspension tester with integrated wheel- and axle weighbridge (05/06 only in connection with PC)	✓	✓	✓
Frequency-controlled noise search for suspension tester	✓	✓	✓
On-floor version with ramps	✓	✓	✓
Radio remote control	✓	✓	✓
Two driving directions and reverse motion by mote	✓	✓	✓
Digital display for brake force difference	only Multiline	✓	✓
Axle weighbridge integrated under roller bed	-	✓	✓
Pneumatic lifting device	-	✓	✓

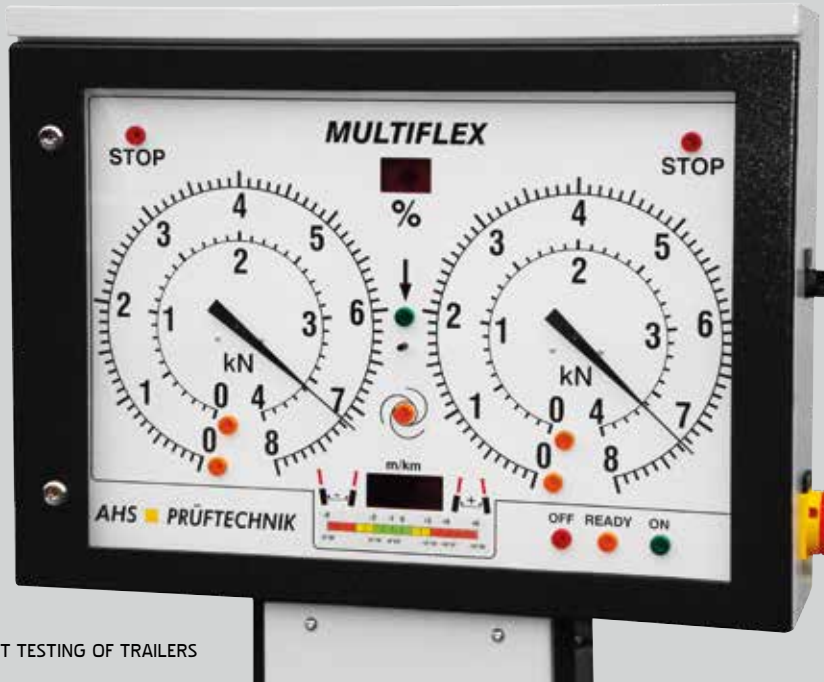
AHS produces roller beds for existing, even very narrow pits (testing width max. 1980 mm)



Roller beds for special usage, e. g. for the testing of caravan and trailer (testing width max. 2660 mm)

MULTIFLEX 04/08

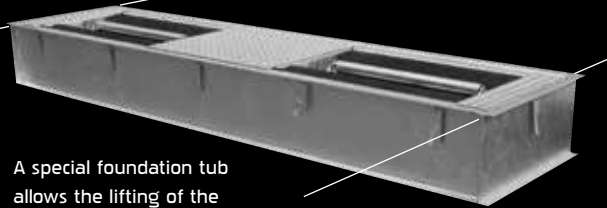
EASY



For many workshops for passenger cars, the testing of trailers and transporters also belongs to the daily business. The testing width and the display range of a plain brake tester for passenger cars might not be enough. The perfect solution: the MULTIFLEX 04/08. Technically up-to-date like the 06 EASY, the brake tester comes with a clearly designed display cabinet up to 8 kN. Combined with the large testing width of 2660 mm (optional), this brake tester is perfect for the testing of trailers and transporters.

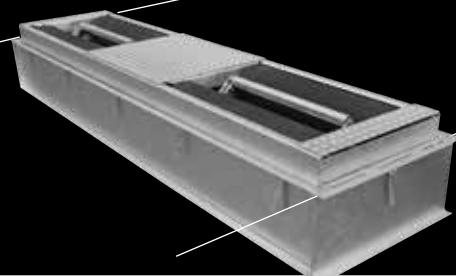
FAST TESTING OF TRAILERS

NEW! BRAKE TESTER WITH PNEUMATIC LIFTING DEVICE



A special foundation tub allows the lifting of the complete brake tester.

By lifting the complete brake tester, the contact pressure increases and the brake values are improved.



Fast trailer testing at one glance:

1. Place the trailer to be tested on the brake tester
2. Apply the parking brake of the drawing vehicle
3. Lift the roller set by remote control
4. Start the brake tester
5. Brake until wheel lock – when possible
6. Stop the brake tester
7. Release brake
8. Lower the brake tester
9. Start again with next axle

Testing of the overrun brake:

1. Fix trailer chassis by chain or belt
2. Move back slowly the trailer with drawn-out towing bar: the braking efficiency of the overrun brake is shown at the display
3. Inspection of the overrun travel of the brake by full braking at moderate speed





AHS 4-fold respect.
6-fold radio industrial
radio remote control

The industrial radio remote control is especially designed for workshops and is protected against dirt, shock and drop. It enables the easy switch to manual mode and single wheel run as well as the wireless start of the PC equipment.

MULTIFLEX 06/12

The MULTIFLEX 06/12 is equipped with powerful 2 x 5.5 kW motors as well as the automatic switch over the display range and is a perfect solution for workshops that also tests small trucks up to 7.5 to total load.

One can choose between a version with one speed (2.5 km/h) and a version with two speeds (2.5 and 5.2 km/h). Both versions come with a comfortable standard testing width of 2660 mm that enables an easy and convenient testing of light trucks. The MULTIFLEX 06/12 can be upgraded with plenty accessories at any time, for example with the testing software PICARO III and pressure transmitters (truck version only).



EASY

PROFESSIONAL DIAGNOSIS OF ALL
VEHICLES UP TO 7,5 TO GROSS WEIGHT

BEST PRACTICE





Automatic 4 x 4 recognition – standard for AHS MULTILINE!



Big, bright digital display for suspension testing

MULTI-TOPLINE



Special locks and silicon sealing for easy maintenance and care!

LED indicator lights with very long lifetime

Digital brake force imbalance display, reverse mode and two testing speeds (standard)

Visual steering via traffic light system and 4-fold industrial radio remote control (standard)

HIGH TECH FOR FUTURE-ORIENTED WORKSHOPS

The AHS test lane is essential for a modern workshop. The testers can be arranged in any order, e. g. only a brake tester and suspension tester or a brake tester and side slip tester. An upgrade to a complete test lane is possible at any time. The practice-oriented equipment and the high functionality are always guaranteed.

Options:
MULTILINE 06/12
with 2 x 5.5 kW and caravan testing width of 2660 mm



Optional: AHS Soft-starter: Relief of power supply system by avoiding peaks of electric tension when starting the brake tester as well as relief of bearings, gears and chains of the brake tester and the drive section of the vehicle.

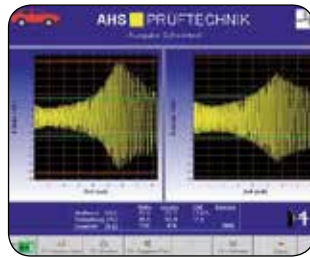
Highly precise measuring suspension tester based on resonance principle (BOGE)

Diagnostic of wheel geometry and suspension damage with AHS side slip tester

Powerful roller brake tester (2 x 4.6 kW motors)

Wheel- and axle-weighbridge integrated in suspension tester

PICARO III – the customer-oriented testing software (optional)



MULTI-SCREENLINE

The AHS MULTI-TOPLINE can be equipped with a PC-system and workshop-righteous solutions for its storage at any time. A cost-conscious solution is the new PC design column (standard for AHS MULTI-SCREENLINE) as well as the PC standard cabinet (optional). As an alternative, the AHS MULTI-SCREENLINE is a completely computer-based test lane without analogue scales. The operation of the testing procedure and display of results is done by PC equipment (standard), notebook or tablet.

PICARO III includes for example:

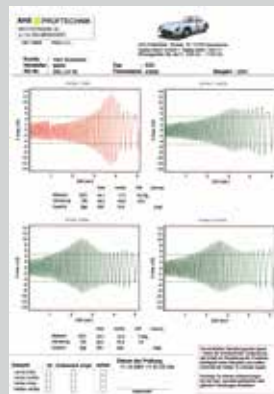
- customer-friendly testing procedures
- alternatively digital brake values or classical scales
- linear diagrams
- significant protocols
- extended fault diagnosis and quick-view of brake force and differences in relation to the testing load per axle and per vehicle
- extended quick measurement, permanent recording of measurement results, alternatively text output or graphic output (even time-controlled)
- error self diagnostics
- control via tablet, smart-phone etc.
- motorbike testing (option)



PC DESIGN COLUMN (LEFT SIDE):
STANDARD FOR MULTI-SCREENLINE

SUSPENSION TESTING IS A MATTER OF TRUST!

Damaged shock absorbers extend the stopping distance and bear a high risk for road safety. A periodical check-up is essential. The AHS SUSPENSION TESTER analyses precisely the condition of the shock absorbers. PICARO III provides significant graphics and helps to decide if a shock absorber has to be replaced.



SCREEN

PC LUXURY CABINET:
A workshop-righteous solution for the storage of the PC system.



Technical information

	Multi-Topline	Multi-Screenline
Max. drive overload in kg	4000	4000
Display and measuring range in kN	0-6	0-6
Testing speed in km/h	5.0	5.0
Operating voltage and protection in V/A (230 V/A on request)	400/25	400/25
Roller brake tester (L x W x H) 2500 x 680 x 350 mm	✓	✓
Suspension tester (L x W x H) 2500 x 750 x 350 mm	✓	✓
Side slip tester (L x W x H) 600 x 700 x 55 mm	✓	✓
Display cabinet (L x W x H) 800 x 800 x 250 mm	✓	-
E-Box with integrated electronics (L x W x H) 600 x 600 x 210 mm	-	✓
PC design column (L x W x H) 550 x 1750 x 470 mm	-	✓
Special measurements on request!	✓	✓



Unloading, setting up and testing – that's it!

MOBILE

IMMEDIATE APPLICATION – EVERYWHERE!
MOBILE TESTING CONCEPTS BY AHS!

Get rid off extensive foundation work and problems by rented objects! The mobile testing concepts developed by AHS enable a fast diagnosis of brakes, side slip and shock absorbers. Together with a hydraulic scissor lift, the all-in-one mobile inspection unit is ready to go. You can design your individual mobile testing concept by combining the single components and accessories. Even for 4-wheel driven vehicles, there is a perfect solution: the AHS MULTIFLEX 4x4 MOBILE.



Design your individual mobile concept by combining the single components!

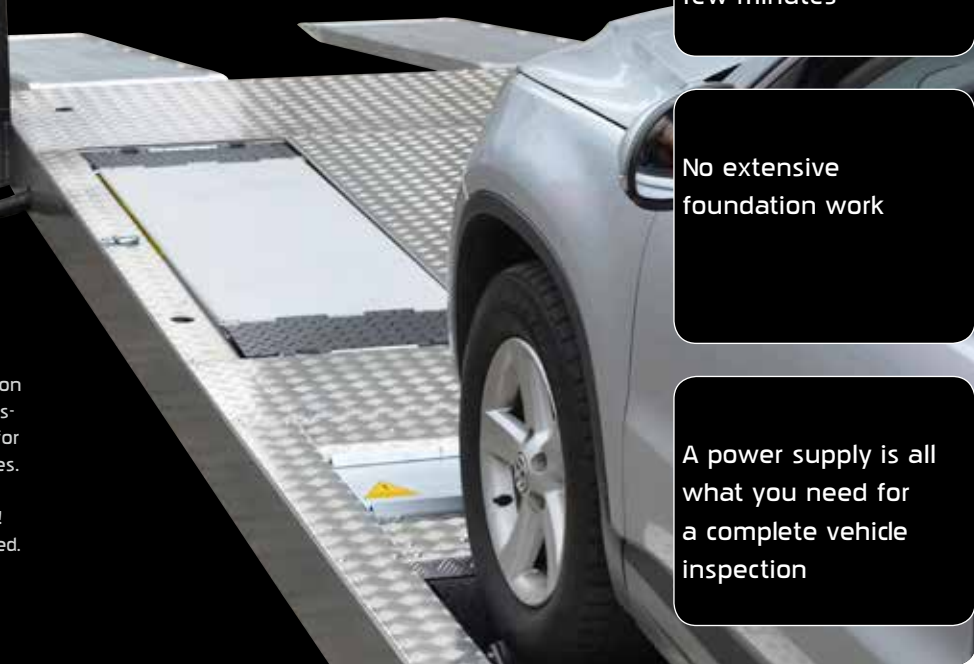
Just one person can set-up the mobile station within few minutes

No extensive foundation work

A power supply is all what you need for a complete vehicle inspection

The AHS mobile testing station can be transported by a transporter or truck and is ready for inspection within few minutes.

Only unload, set-up and test!
Just a power supply is needed.



IN PRACTICE:



Straightforward and flexible solutions: the mobile testing station made by AHS Prüftechnik

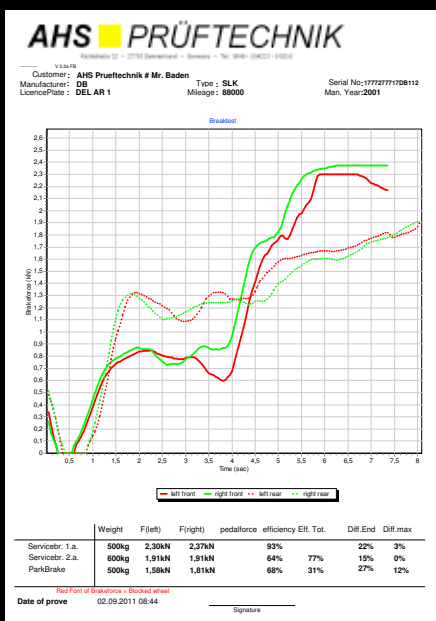
FOUNDATION DEVICES

Edge protection frames and built-in-chassis (foundation tubs) hot galvanized – a perfect help for proper foundations

Foundation tubs for roller brake testers are used as a permanent shuttering and are open to the ground. They come with an integrated edge protection frame as well as two bearings for the weighbridge. The hot galvanized construction is self-supporting and consists of heavy-walled steel sheet (outside steel sheet 3 mm, bearings 5 mm). It is installed in few steps: prepare ground plate, put in foundation tub, bring it into line according to the foundation plan, cover with concrete. Foundation tubs make it easier for the contractor, lower the construction costs and guarantee the necessary measurements. For some testers like side slip tester, joint play detector or plate brake tester, the foundation frame is mandatory in order to guarantee a proper working. Edge protection frames are reasonable to protect the edges of the foundation.



AHS TEST RESULTS



DETAILED BRAKE TEST RESULT - FULL TEST

GVW No.: 64203 Type: 4-achsig
 Vehicle Make: DAF GVW: 2,1 t
 Vehicle Type: 2 AXLE RIGID HDV Date: 27.01.2015 Time: 09:30
 Reg. no.: 16350 GVW: 16000 GVW: 22000

Axis	Test	Result	Value	Unit
Axis 1	Service	N/D	Pass	Pass
	Parking	N/D	Pass	Pass
	Overall	Pass	Pass	Pass
Axis 2	Service	N/D	Pass	Pass
	Parking	N/D	Pass	Pass
	Overall	Pass	Pass	Pass

TEST SUMMARY

Measured Vehicle Weight = 15100 kg

BRAKE SYSTEM	PAIS VALUE	TEST VALUE	RESULT
Service	25 % GVW	28 % (FMA)	Pass
Secondary	25 % GVW	28 % (FMA)	Pass
Parking	18 % GVW	22 %	Pass

OVERALL RESULT: PASS



PEDAL FORCE METER PKM 2012

In many workshops, mechanics don't like using the pedal force meter, because the handling is always circuitous, inconvenient and therefore time consuming. The AHS PKM 2012 solves these problems. User-friendly handling and precise measurements are guaranteed, the PKM 2012 competes the perfect brake testing.

AHS ■ REVERSE MODE

Automatic 4-wheel recognition

OPTIONAL FOR ALL AHS MULTIFLEX TESTERS

For the easy and fast testing of 4-wheel driven cars in your workshop, AHS has developed a special AHS reverse mode. It is a precise as well as time saving method to test 4-wheel driven cars on a single axle roller brake tester. Compared to conventional testing methods, the AHS mode considers the backwards turning wheel, too. This is necessary in order to detect if the brakes on both sides react equally when pressing the brake pedal. And this is the way it works:

Standard for
AHS MULTILINE!



Right after starting (rollers are turning), the brake tester recognizes a 4x4 drive system and stops. The brake tester switches to the reverse mode and starts again. The left front wheel turns forwards, the right front wheel turns backwards. The measurement starts in reverse mode.

AHS reverse mode:



The inspector brakes slowly. The particular: The measurement is shown for both wheels, not only for the forwards turning left wheel, but also for the backwards turning right wheel.

Conventional reverse mode:



The inspector brakes slowly. Only the measurement values for the forwards turning left wheel are displayed. The display for the backwards turning right wheel does not react. (Picture only for visualization)



The inspector brakes to the maximum.



The inspector brakes to the maximum. (Picture only for visualization)



After reaching the max. brake force for the left wheel, the brake testers switches to another mode: now the right wheel turns forwards, the left wheel turns backwards. The measurement for the right front wheel is done now. Again, the values for the complete front axle are displayed and one has to brake until the maximum is reached.



After reaching the max. brake force for the left wheel, the brake testers switches to another mode: now the right wheel turns forwards, the left wheel turns backwards. The measurement for the right front wheel is done now. Only the values for the forwards turning right wheel are displayed. (Picture only for visualization)



After finishing the measurement for front wheel, the vehicle moves forward and the measurement for the rear axle starts according to the same principle. There are 4-wheel systems existing, where only the front axle has to be tested in reverse mode and the rear axle can be tested normally both sides turning forwards (like it is shown here). Finally, the testing of the parking brake has to be done.

Standard equipment	Multiflex 05 Multiline 05	06 and 04/08	06/12	Mobile
Single-piece roller bed (split roller bed on request)	✓	✓	✓	✓
Fully plastic-corundum coated rollers Ø in mm	200	200	200	200
Rollers at same level (elevated rear rollers available on request)	✓	✓	✓	✓
Testing width min./max. in mm	850/2300	850/2300	850/2660	800/2130
Splash-proof gear motors	✓	✓	✓	✓
Drive power in kW	2 x 2.5	2 x 4.6	2 x 5.5	2 x 4.6
15 m signal cable for connection of roller set/cabinet	✓	✓	✓	-
Start-on protection against external drive (wrong drive-out during stopped rollers)	✓	✓	✓	✓
Maintenance-free strain gauge measuring system	✓	✓	✓	✓
Automatic activation and restart	✓	✓	✓	✓
Locked brake cut-off	✓	✓	✓	✓
Start jamming protection	✓	✓	✓	✓
Drive-out support	✓	✓	✓	✓
Cabinet	Multiflex 05 Multiline 05	06 and 04/08	06/12	Mobile
Cabinet with two large analogue scales	✓	✓	✓	✓ ¹
Lockable main switch	✓	✓	✓	✓
All indicator lights via LED with very long lifetime	✓	✓	✓	✓
Indicator light for automatic mode	✓	✓	✓	✓
Driven-in indicator light for active security control	only Multiline	✓	✓	✓
Visual steering via traffic light system	only Multiline	✓	✓	✓
Indicator light for high brake force difference	✓	✓	✓	✓
Special locks	✓	✓	✓	✓
Silicon seal against splash-water	✓	✓	✓	✓
Preparation for digital display for brake force imbalance	only Multiline	✓	✓	only Multiline
Preparation for side slip tester AHS AT 1002	only Multiline	✓	✓	only Multiline
Preparation for suspension tester (via digital displays)	only Multiline	-	-	only Multiline
Preparation for suspension tester (via PC)	✓	✓	✓	✓
PC interface	✓	✓	✓	✓
Network-compatibility	✓	✓	✓	✓
Technical information	Multiflex 05 Multiline 05	06 and 04/08	06/12	Mobile
Max. drive overload in kg	3000	4000	4000	3000
Display range in kN	0-6	0-6 resp. 0-8	0-6 resp. 0-12	0-6
Measuring range in kN	0-5	0-6 resp. 0-8	0-6 resp. 0-12	0-6
Testing speed in km/h	5	5	2.5 and 5.2	5
Operating voltage and protection in V/A	400/25	400/25	400/32	400/25
Measurements	Multiflex 05 Multiline 05	06 and 04/08	06/12	Mobile
Roller bed L 680 x W 2600 x H 250 mm	✓	✓	W 2960	siehe unten ²
Other measurements on request!	✓	✓	✓	✓
Elevated rollers (special model for caravans) - this position on request for extra charge!	-	✓	✓	✓
Cabinet H 600 x W 805 x D 210 mm	✓	✓	✓	-
Weight of roller bed and cabinet in kg	approx. 475	approx. 475	approx. 650	depends on model
Modules	Multiflex 05 Multiline 05	06 and 04/08	06/12	Mobile
Suspension tester	optional	optional	optional	✓
Wheel- and axle-weighbridge	optional	optional	optional	✓
Hydraulic scissor lift up to 3 t (height approx. 1.85 m)	-	-	-	✓

Please order our foundation drawing. Please check all measurements on the premises.

¹plug and play ²total area needed for installation incl. ramps: approx. 10.00 x 2.30 m

AHS ■ MULTILINE

Roller brake testers for passenger cars and transporters

Standard equipment of roller brake tester	Multi-Topline	Multi-Screenline
Single-piece roller bed (split roller bed on request)	✓	✓
Fully plastic-corundum coated rollers Ø in mm	200	200
Rollers at same level (elevated rear rollers available on request)	✓	✓
Testing width min./max. in mm	850/2300	850/2300
Splash-proof gear motors	✓	✓
Drive power in kW	2 x 4.6	2 x 4.6
15 m signal cable for connection of roller set/cabinet	✓	✓
Maintenance-free strain gauge measuring system	✓	✓
Start-on protection against external drive (Wrong drive-out during stopped rollers)	✓	✓
Manual operation by 4-fold industrial radio remote control with deadman switching or automatic mode	✓	✓
Single-wheel mode by 4-fold industrial radio remote control	✓	✓
Automatic 4x4 system recognition	✓	✓
Automatic activation and restart	✓	✓
Start jamming protection	✓	✓
Locked brake cut-off	✓	✓
Standard equipment of suspension tester	Multi-Topline	Multi-Screenline
Single-piece roller bed (split roller bed on request)	✓	✓
Testing width min./max. in mm	850/2300	850/2300
Horizontally swinging plates	✓	✓
Electric motor with flywheel mass and excentric tappet	✓	✓
Measuring springs	✓	✓
Contactless-working way receivers and limit switches	✓	✓
Integrated wheel- and axle-weighbridge	✓	✓
Resonance principle (BOGE)	✓	✓
Standard equipment of side slip tester	Multi-Topline	Multi-Screenline
Fully plastic-corundum coated testing plate, forced-guided	✓	✓
Precise way receiver	✓	✓
Foundation frame, hot-galvanized	✓	✓
Cabinet	Multi-Topline	Multi-Screenline
Two large analogue scales	✓	-
Integration of electronics in workshop-righteous E-Box	-	✓
Storage of PC hardware in PC design column	-	✓
software package PICARO III and complete PC system (display of all measurements, function lights, digital or analogue, on PC-screen)	-	✓
4-fold industrial radio remote control	✓	✓
4 LED indicator lights for driving direction	✓	-
All indicator lights via LED with very long lifetime	✓	-
Automatic indicator and driven-in indicator light for active security control	✓	✓
Visual steering via traffic light system	✓	-
Digital display for brake force difference	✓	-
Digital display for side slip (0-20 m/km)	✓	-
Two big digital displays for suspension tester (right/left)	✓	-
1 digital display for deviation of shock absorber values	✓	-
Lockable main switch, special locks and silicon seal	✓	✓
PC interface, network-compatibility	✓	✓
Optional Multiline 06/12 with 2 x 5.5 kW motors and 2660 mm testing width	✓	✓

Please order our foundation drawing. Please check all measurements on the premises.

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